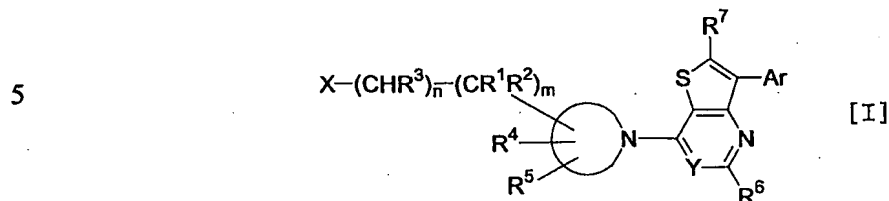
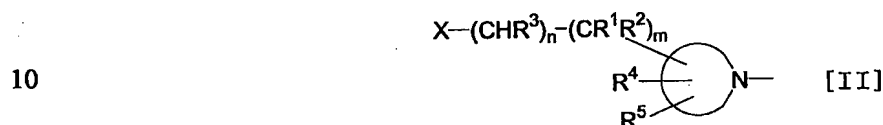


## WHAT IS CLAIMED IS:

1. A thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group represented by the following formula [I]:



(wherein the cyclic amino group is represented by the following formula [II]:



in which the cyclic amino group is a 3- to 8-membered saturated cyclic amine or a 3- to 8-membered saturated cyclic amine bridged with C<sub>1-5</sub>alkylene or C<sub>1-4</sub>alkylene-O-C<sub>1-4</sub>alkylene between any different two carbon atoms of the cyclic amine, which cyclic amine is substituted  
15 with a group represented by -(CR<sup>1</sup>R<sup>2</sup>)<sub>m</sub>-(CHR<sup>3</sup>)<sub>n</sub>-X, R<sup>4</sup> and R<sup>5</sup> independently on the same or different carbon atoms of the cyclic amine;

X is cyano or hydroxy;

Y is N or CH;

R<sup>1</sup> is hydrogen, hydroxy, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy-C<sub>1-5</sub>alkyl or hydroxy-C<sub>1-5</sub>alkyl;

20 R<sup>2</sup> is hydrogen or C<sub>1-5</sub>alkyl;

R<sup>3</sup> is hydrogen, cyano, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy-C<sub>1-5</sub>alkyl or hydroxy-C<sub>1-5</sub>alkyl;

m is an integer selected from 0, 1, 2, 3, 4 and 5;

n is 0 or 1;

R<sup>4</sup> is hydrogen, hydroxy, hydroxy-C<sub>1-5</sub>alkyl, cyano, cyano-C<sub>1-5</sub>alkyl or C<sub>1-5</sub>alkyl;

25 R<sup>5</sup> is hydrogen or C<sub>1-5</sub>alkyl;

R<sup>6</sup> is hydrogen, C<sub>1-5</sub>alkyl, C<sub>3-8</sub>cycloalkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-5</sub>alkyl, hydroxy, C<sub>1-5</sub>alkoxy, C<sub>3-8</sub>cycloalkyloxy or -N(R<sup>8</sup>)R<sup>9</sup>;

R<sup>7</sup> is hydrogen, halogen, C<sub>1-5</sub>alkyl, C<sub>3-8</sub>cycloalkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-5</sub>alkyl, hydroxy, C<sub>1-</sub>

salkoxy, C<sub>3-8</sub>cycloalkoxy, -N(R<sup>10</sup>)R<sup>11</sup>, -CO<sub>2</sub>R<sup>12</sup>, cyano, nitro, C<sub>1-5</sub>salkylthio, trifluoromethyl or trifluoromethoxy;

Ar is aryl or heteroaryl which aryl or heteroaryl is unsubstituted or substituted with 1 or more substituents, which are the same or different, selected from the group consisting of halogen, C<sub>1-5</sub>salkyl, C<sub>3-8</sub>cycloalkyl, C<sub>2-5</sub>salkenyl, C<sub>2-5</sub>salkynyl, C<sub>1-5</sub>salkoxy, C<sub>1-5</sub>salkylthio, cyano, trifluoromethyl, trifluoromethoxy, difluoromethoxy, fluoromethoxy, methylenedioxy, ethylenedioxy and -N(R<sup>13</sup>)R<sup>14</sup>;

R<sup>8</sup> and R<sup>9</sup> are the same or different, and independently are hydrogen or C<sub>1-5</sub>salkyl;

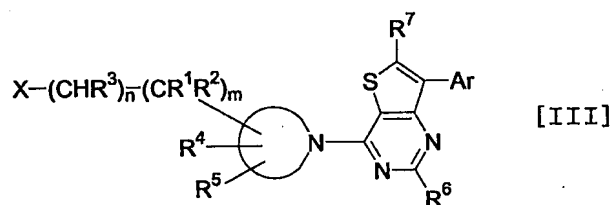
R<sup>10</sup> and R<sup>11</sup> are the same or different, and independently are hydrogen or C<sub>1-5</sub>salkyl;

10 R<sup>12</sup> is hydrogen or C<sub>1-5</sub>salkyl;

R<sup>13</sup> and R<sup>14</sup> are the same or different, and independently are hydrogen or C<sub>1-5</sub>salkyl)

, individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

15 2. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 1 represented by the following formula [III]:



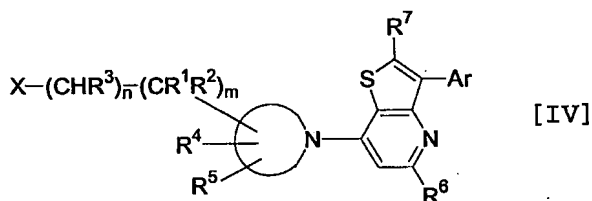
(wherein X, m, n, the cyclic amino group, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup> and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

25 3. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 2 represented by formula [III], wherein X is cyano; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is 0 or 1; R<sup>1</sup>, R<sup>2</sup>, R<sup>4</sup> and R<sup>5</sup> are hydrogen; R<sup>6</sup> is C<sub>1</sub>-

alkyl;  $R^7$  is hydrogen or  $C_{1-5}$ alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{13})R^{14}$  (wherein  $R^{13}$  and  $R^{14}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

4. The thienopyrimidine derivative substituted with the cyclic amino group according to claim 2 represented by formula [III], wherein X is hydroxy; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is an integer selected from 1, 2 and 3;  $R^1$ ,  $R^2$ ,  $R^4$  and  $R^5$  are hydrogen;  $R^6$  is  $C_{1-5}$ alkyl;  $R^7$  is hydrogen or  $C_{1-5}$ alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{13})R^{14}$  (wherein  $R^{13}$  and  $R^{14}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

5. The thienopyridine derivative substituted with the cyclic amino group according to claim 1 represented by the following formula [IV]:



25 (wherein X, m, n, the cyclic amino group,  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  and Ar are as defined in claim 1), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

6. The thienopyridine derivative substituted with the cyclic amino group according to claim 5 represented by formula [IV], wherein X is cyano; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is 0 or 1;  $R^1$ ,  $R^2$ ,  $R^4$  and  $R^5$  are hydrogen;  $R^6$  is  $C_{1-5}$ alkyl;  $R^7$  is hydrogen or  $C_{1-5}$ alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{13})R^{14}$  (wherein  $R^{13}$  and  $R^{14}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

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7. The thienopyridine derivative substituted with the cyclic amino group according to claim 5 represented by formula [IV], wherein X is hydroxy; the cyclic amino group is a 4- to 7-membered saturated cyclic amine; n is 0; m is an integer selected from 1, 2 and 3;  $R^1$ ,  $R^2$ ,  $R^4$  and  $R^5$  are hydrogen;  $R^6$  is  $C_{1-5}$ alkyl;  $R^7$  is hydrogen or  $C_{1-5}$ alkyl; and Ar is phenyl which phenyl is substituted with two or three substituents, which are the same or different, selected from the group consisting of halogen,  $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy,  $C_{1-3}$ alkylthio, trifluoromethyl, trifluoromethoxy and  $-N(R^{13})R^{14}$  (wherein  $R^{13}$  and  $R^{14}$  are the same or different, and independently are hydrogen or  $C_{1-3}$ alkyl), individual isomers thereof or racemic or non-racemic mixtures of isomers thereof, or pharmaceutically acceptable salts and hydrates thereof.

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8. An antagonist for CRF receptors, comprising a thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claims 1 to 7, as an active ingredient.

25 9. Use of a thienopyrimidine or thienopyridine derivative substituted with a cyclic amino group, a pharmaceutically acceptable salt thereof or its hydrate according to any one of claim 1 to 7, for the manufacture of an antagonist for CRF receptors.